2863

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June 20, 2003

Richard Bennett
Union Recovery
14108 NE 62nd Street
Redmond, WA 98052

Re: United States Patent Applications

Titles:	METHOD AND APPARATUS FOR CALIBRATION OVER TIME OF HISTOLOGICAL AND PHYSIOLOGICAL BIOMETRIC MARKERS FOR AUTHENTICATION; METHOD FOR BIOMETRIC AUTHENTICATION THROUGH LAYERING BIOMETRIC TRAITS
Serial Nos.:	09/815,568 and 09/814,607
Filing Dates:	March 23, 2001 and March 22, 2001
Our Files:	11473.13 and 11473.15

Dear Richard:

Enclosed please find copies of the Office Actions for the above-referenced cases received in our office and a draft of a response to the Office Action for the METHOD AND APPARATUS FOR CALIBRATION OVER TIME OF HISTOLOGICAL AND PHYSIOLOGICAL BIOMETRIC MARKERS FOR AUTHENTICATION application. Please let us know whether you authorize us to respond to the above-referenced Office Actions. We have until June 26, 2003 to file our responses. Failure to respond will allow these applications to go abandoned.

Cordially,

KIRTON & McCONKIE

Michael F. Krieger

bo
Enclosures: Copies of Office Actions and one draft response
#691236 v1 - ltrRBennett

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,568	03/23/2001	Rick V. Murakami	9437.13 11473.13	6499

21999 7590 02/26/2003

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EXAMINER	
SUN, XIUQIN	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

DOCKETING: 3/4/03 SR
RESPONSE DUE: 5/26/03 (3 mos)

JUN 23 2003

PATENT AND TRADEMARK OFFICE

Office Action Summary	Application No. 09/815,568	Applicant(s) MURAKAMI ET AL.
	Examiner Xiuqin Sun	Art Unit 2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,10-11,15-20,26-27,31-35 and 41-42* is/are rejected.

7)☒ Claim(s) *5-9,12-14,21-25,28-30,36-40 and 43-45* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

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Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 10-11, 15-20, 26-27, 31-35 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bianco et al. (U.S. Pat. No. 6256737) in view of Keyware (EP 1081632 A1) and Beatson et al. (U.S. Pat. No. 5892824)

Bianco et al. teach a system, method and computer program product that utilizes biometric measurements for the authentication of users to access to enterprise resources (see abstract; col. 2, lines 53-67 and col. 3, lines 1-48). Bianco et al. further suggest the importance of calibrating the biometric authentication system over time (col. 8, lines 1-8 and col. 28, lines 43-52). Bianco et al. further teaches a process for generating a template fingerprint, comprising the steps of: obtaining an authenticating biometric value from an actual biometric measurement (col. 8, lines 26-27); integrating the obtained authenticating biometric value into an authenticating template (col. 35, lines 54-67, col. 36, lines 1-55, col. 40, lines 43-67 and col. 41, lines 1-8). Bianco et al. further teaches that the integration of the weighted value is accomplished by averaging

the weighted value into the authenticating range of values (col. 36, lines 1-43), and the step of averaging the weighted value further comprises multiplying the authenticating measured value by a multiplier (col. 36, lines 1-43). Bianco et al. further teaches that the authenticated biometric values include measurement of histological and physiological biometric markers (col. 12, lines 51-61), and one of the biometric markers being measured is an internal biometric marker (col. 12, lines 51-61).

Bianco et al. do not teach explicitly: weighting the authenticating biometric value; details of calibrating a biometric authentication system over time. Bianco et al. also do not mention explicitly that the step of obtaining an authenticated biometric value comprises determining that a measured biometric value falls within a predetermined range of biometric values.

Keyware teaches the step and means of weighting the authenticating biometric value, obtained from one of a plurality of bio-engines performing different biometric authentication operation, at its result or score level (see Abstract; col. 8, lines 6-30; col. 9, lines 36-51; col. 10, lines 45-51; and col. 11, lines 20-44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Keyware weighting technique in the Bianco system in order to combine the outcome of different biometric authentication operation to account for variances in biometric measurements (Keyware, col. 1, lines 44-56 and col. 8, lines 12-30).

Beatson et al. disclose a biometric template updating process for signature verification, and suggest one to calibrate a biometric authentication system by updating

the biometric template over time, such that said system is adaptable to changes in a user's biometric over time (col. 6, lines 56-58, col. 19, lines 39-67 and col. 20, lines 1-14). The disclosure of Beatson et al. further includes a step of obtaining an authenticated biometric value that comprises determining that a measured biometric value falls within a predetermined range of biometric values (col. 19, lines 23-38).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teachings of Beatson method for updating a biometric template, and Beatson data validation scheme in the Bianco system in order to provide a better method and system for biometric authentication and activation that can be calibrated over time (Beatson et al., col. 6, lines 9-15 and col. 19, lines 49-67).

Allowable Subject Matter

3. Claims 5-9, 12-14, 21-25, 28-30, 36-40 and 43-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

In regard to:

Claims 5, 21 and 36:

The primary reason for the allowance of claims 5, 21 and 36 is the inclusion of the method step of weighting the authenticating biometric value which allows the

biometric value to be adaptably weighted. It is this step as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 6, 22 and 37:

The primary reason for the allowance of claims 6, 22 and 37 is the inclusion of the method step of adaptably weighting biometric value based upon consistent differences in authenticated measured biometric values. It is this step as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 7, 23 and 38:

The primary reason for the allowance of claims 7, 23 and 38 is the inclusion of the method step of adaptably weighting biometric value is based upon trends in measured authenticating biometric values. It is this step as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 8, 24and 39:

The primary reason for the allowance of claims 8, 24 and 39 is the inclusion of the method step of adaptably weighting biometric value is based on the frequency of use of the biometric authentication device. It is this step as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 9, 25 and 40:

The primary reason for the allowance of claims 9, 25 and 40 is the inclusion of the method step of adaptably weighting biometric value is adaptably weighted based on the number of uses of the biometric authentication device. It is this step as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 12, 28 and 43:

The primary reason for the allowance of claims 12, 28 and 43 is the inclusion of the method step of weighting the authenticated biometric values to accommodate for known changes in a biometric marker. It is this step as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 13, 29 and 44:

The primary reason for the allowance of claims 13, 29 and 44 is the inclusion of the limitation biometric values are that said univariate values. It is this limitation as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 14, 30 and 45:

The primary reason for the allowance of claims 13, 29 and 44 is the inclusion of the limitation the biometric values are multivariate values. It is this limitation as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments with respect to claims 1-4, 10-11, 15-20, 26-27, 31-35 and 41-42 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-4, 10-11, 15-20, 26-27, 31-35 and 41-42 are rejected as new art (Keyware, EP 1081632 A1) has been found to teach the step and means of weighting the authenticating biometric value by a predetermined factor. For more detailed response, please refer to section 2 set forth above in this Office Action.

The Applicant further argued that "Beatson is solely directed to authenticating signatures and excludes from considering any broader application, including authentication of internal biometric features. One skilled in the art would thus not look to Beatson when contemplating a device capable of authenticating internal biometric measurements or a device capable of reading more than one biometric value." This argument is not persuasive. This argument is not persuasive. The Examiner recognized that the test for obviousness is not whether the features of a second reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of

ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, in the current case, it is well known in the art that "authenticating signatures" is one of the common authentication techniques that are used for establishing authorization to permit a person to activate a device, participate in a transaction, or identify him or herself. Although Beatson et al. do not mention explicitly the implementation of the disclosed calibrating feature into the device of Bianco, it would have been obvious for one having ordinary skill in the art at the time the invention was made to look to and include the teaching of Beatson, as an obviously analogous prior art reference (Beatson, col. 20, lines 37-57), in the Bianco system in order to provide a method for calibrating a biometric authentication device over time.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (703)305-3467. The examiner can normally be reached on 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

XS
XS
February 19, 2003

John Barlow
Supervisory Patent Examiner
Technology Center 2800

Notice of References Cited

Application/Control No.	Applicant(s)/Patent Under Reexamination	
09/815,568	MURAKAMI ET AL.	
Examiner	Art Unit	Page 1 of 1
Xiuqin Sun	2863	

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-			
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	EP 1081632 A1	03-2001	European Patent	KEYWARE, TECHNOLOGIES	G06K 09/68
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
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	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.